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PATENT**REMARKS**

Applicants have thoroughly considered the Examiner's remarks in the February 13, 2004 Office action and respectfully request reconsideration of the application. By this Amendment A, applicants have amended claims 1 and 20 and have added new claims 25-34. Thus, claims 1-34 are presented in the application for further consideration.

Rejections based on 35 U.S.C. §101

Claims 1-24 stand rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. The Examiner bases this rejection on his conclusion that the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility. Notwithstanding the Examiner's conclusion, the invention involves at least a computer program and a data structure. Moreover, the claims recite specific tangible processes for facilitating business transactions that produce useful, concrete, and tangible results. In particular, embodiments of the present invention involve computerized processes, and the computer-executable instructions themselves, for comprehensive, integrated liquidity management for reducing the risk of over-funding and exploding insurance products.

Section 101 reads: "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title." In reading section 101, the Supreme Court stated that Congress intended statutory subject matter to include "anything under the sun that is made by man."¹ Applicants concede the three categories of unpatentable subject matter identified by the Supreme Court, namely, "laws of nature, natural phenomena, and abstract ideas."² But the present invention falls outside these three categories. Moreover, even

¹ *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980).

² *Diamond v. Diehr*, 450 U.S. 175, 185 (1981).

though a mere mathematical algorithm may not be patentable subject matter, a practical application of the mathematical algorithm may nonetheless be patentable.³

In fact, case law has confirmed that statutory subject matter can include methods of doing business.⁴ In a leading case in this area, the *State Street Bank* case, the Court of Appeals for the Federal Circuit found that a computer or machine programmed to transform data that represents discrete dollar amounts into a final share price through a series of mathematical calculations does, in fact, constitute the practical application of a mathematical algorithm, formula, or calculation because it produces "a useful, concrete and tangible result." In other words, the *State Street Bank* court held that the determination of a final share price upon which investors and their brokers can make an investment decision satisfies section 101.⁵

The invention's usefulness need not be expressly recited in the claims, rather it may be inferred.⁶ In this instance, the claims clearly recite an invention that has utility. Generally, independent claim 1 sets forth a process for generating a comprehensive plan for analyzing a client's current estate liquidity and projecting future estate liquidity and independent claim 20 sets forth a process for defining a pre-paid variable life insurance product. As described in the present application, the invention has a number of useful features, including: permitting a series of discrete insurance product purchases; maximizing the amount of death benefit at older ages; maximizing the cash value per premium dollar; minimizing at all times the cost of "at-risk mortality"; and tracking current and future liquidity needs. See page 2, lines 19-24.

³ See *Diamond v. Diehr*, 450 U.S. at 187 ("An application of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection."); *In re Alappat*, 33 F.3d 1526, 1543, (Fed. Cir. 1994) (en banc) (holding that a practical application of mathematical subject matter is patentable).

⁴ See *State St. Bank & Trust v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1375-77, (Fed. Cir. 1998), *cert. denied*, 525 U.S. 1093 (1999) (holding that there is no "business method" exception to patentability).

⁵ *Id.*

⁶ *Diamond v. Diehr*, 450 U.S. at 185.

For example, a computerized planning process gathers, at minimum, a client's data relating to retirement protection, current estate liquidity, estate tax reduction, and future estate liquidity. The result of the planning process analyses is a comprehensive solution that identifies which of the client's assets and how much of them to transfer to particular life insurance products having desirable risk characteristics. See page 5, lines 1-3. The combination of the process and insurance products reduces the likelihood of either over-funding or explosion. This combination enables the client to apply for a premium whereby each payment stands on its own as a pre-paid life insurance purchase because the policy insurance amount is self-adjusted daily by the computer process using net single premium ratios of cash value to death benefit. This helps avoid having the client locked into purchasing a significantly greater amount of death benefit than is currently needed in anticipation of matching some arbitrary projection of what his or her wealth will be in the future. Hence, the client is paying for an insurance coverage at a most favorable price. At the same time, with the daily self-adjusting policy insurance amount, the client receives the best coverage available.

Therefore, this computerized process gives the client a comprehensive and up-to-date picture of his or her financial and estate liquidity planning. Because the process is so much more efficient than conventional processes, the result is especially beneficial to financial planning advisors and the like. The process is also advantageous to the carriers as they compete for improved insurance products.

The question of whether a claimed invention is concrete and tangible arises when a result cannot be assured because the invention cannot operate as intended without undue experimentation or is merely a mathematical construct.⁷ However, independent claims 1 and 20 clearly recite computerized processes that perform well-defined steps or actions. The claimed inventions will consistently result in selecting appropriate insurance products from initial asset inputs. Subsequently, one embodiment of the invention can adjust the premium of the insurance

⁷ See *In re Warmerdam*, 33 F.3d 1354 (Fed. Cir. 1994).

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product as the cash value of the product is being updated daily. Moreover, the resultant liquidity plans and defined insurance products are much more than mere mathematical constructs. As such, the claims are directed to embodiments of a concrete and tangible invention.

In light of the foregoing, applicants submit that the processes of independent claims 1 and 20 produce useful, concrete, and tangible results and, thus, satisfy the requirements of 35 U.S.C. §101. Claims 2-19, and new claim 25, depend from claim 1, and claims 21-24 depend from claim 20. Each of these dependent claims is believed to be in compliance with section 101 for at least the same reasons as the claims from which they depend.

New claims 26-34 are directed to a plurality of programming instructions stored in a storage medium, which has been confirmed by the Federal Circuit to be statutory subject matter.⁸ Moreover, the steps to be performed by the programming instructions are statutory because they recite a practical application in the technological arts as required by the Examiner.

For these reasons, applicants submit that the amended claims overcome the section 101 rejection. Accordingly, applicants respectfully request that the this rejection be withdrawn.

Rejections based on 35 U.S.C. 103

Claims 1-24 also stand rejected under 35 U.S.C. §103(a) as being unpatentable over Moran, U.S. Patent No. 6,430,542, in view of Erwin et al, U.S. Patent No. 6,249,770. The Examiner acknowledges that the "Moran patent fails to explicitly teach performing liquidity analyses of the categorized assets to determine current estate liquidity and projected future estate liquidity of the client; and generating a plan for re-allocating the client's assets among the defined categories based on the liquidity analyses." Office Action, page 3. However, the Examiner asserts that the Erwin patent remedies the deficiencies of the primary reference. Applicants respectfully disagree with the Examiner's reading of the cited art, and submit that the

⁸ See *In re Beauregard*, 53 F.3d 1583 (Fed. Cir. 1995) (ordering a remand to be considered in accordance with the concession of the Commissioner of Patents and Trademarks that "computer programs embodied in a tangible medium, such as floppy diskettes, are patentable subject matter under 35 U.S.C. §101").

combination of the Moran and Erwin patents not only fails to teach or suggest all of the features of applicant's claims, but teaches away from the claimed invention. Thus, *prima facie* obviousness has not been established. See MPEP §§2142 and 2143.

First, the Examiner acknowledges and applicants agree that the Moran patent fails to teach performing liquidity analyses of categorized assets. Second, because the Erwin patent teaches away from the claimed invention, there is no motivation for combining its teachings with those of the Moran patent. The Erwin patent teaches the "format of the Balance Sheet is consistent with the system approach to cash flows and separately spreads assets and liabilities related to . . . insurance subsidiaries and financial activities." Erwin patent, col. 6, lines 49-53. The Balance Sheet format provides different types and categories of assets. The claimed invention, however, uses a different categorization or classification of assets from those in either the Moran patent or the Erwin patent. The claimed invention categorizes assets that are tailored towards the four liquidity analyses disclosed in the application (i.e. a retirement protection analysis, a current estate liquidity analysis, an estate tax reduction analysis, and a future estate liquidity analysis). Using these different categories, the claimed invention provides a novel approach to current and future estate liquidity analyses. This would thus destroy the principal operation of the Erwin patent as it imports formats of financial data that are consistent with the system approach to cash flows and separately spreads assets and liabilities related to core operations from captive finance companies, insurance subsidiaries, and other financial activities.

Furthermore, the claimed invention teaches more than liquidity analyses of categorized assets of a client. The results of the liquidity analyses are used as parameters to determine which of the series of pre-paid insurance products is most favorable to the client's retirement planning goals. The claimed invention also provides for daily, on-going assessment of the cash value of the product to avoid over-funding or explosion. "The mere fact that references *can* be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination."⁹

⁹ MPEP §2143.01 (citing *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990).

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Accordingly, *prima facie* obviousness has not been established with respect to claim 1-24.

In light of the foregoing, applicants believe claims 1-34 to be in condition for allowance and respectfully request reconsideration of the application as amended.

Applicants have reviewed the cited but unapplied references and have found them to be no more pertinent than the art discussed above.

The Commissioner is hereby authorized to charge any fees that may be required during the entire pendency of this application to Deposit Account No. 19-1345.

Respectfully submitted,



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